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Hobbies

• A Weekly Journal •

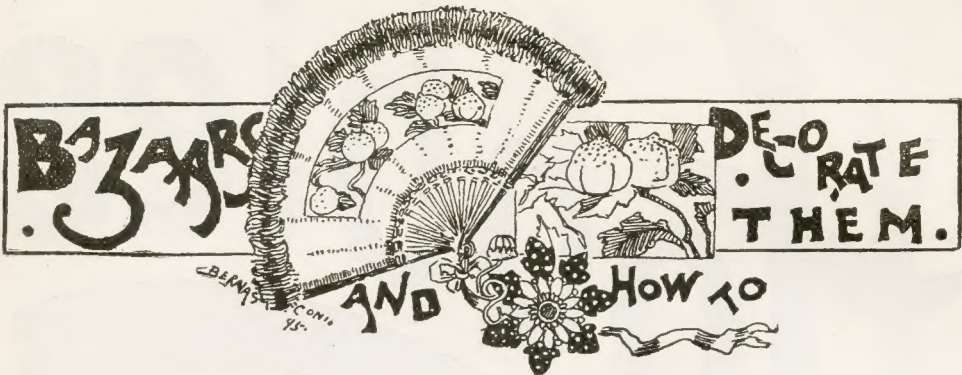
For Amateurs of Both Sexes.

No. 6. VOL. I.

NOVEMBER 23, 1895.

ONE PENNY.

Stamps Week by Week.
Fretworking and Inlaying in Wood.
Photography for Amateurs.
Bazaars and How to make them Successful.
Playgrounds of Electrical Science.
Cycling and Athletics.
Weekly Presentation Design,—Carving Pattern for
Adams Frame.
Venetian Bent Iron Work.
Magic Lanterns and How to Use Limelight.
Some Paying Hobbies.
Prize Competitions, Correspondence, Etc.



CHAPTER VI.



BEFORE leaving the subject of decoration, a few suggestions might be offered with regard to the Flower Stall. At Bazaars flowers are indispensable, and a neat Flower Stall can be made a very gay and attractive feature. If possible this Stall should be erected in the centre of the room, as it will thus act as a breakwater against the crowd.

We all know that a crowd of people collected within an open space is a most uncontrollable body. It sways to and fro, moving in this direction and in that, causing inconvenience and anxiety to everyone. At Bazaars this difficulty is often experienced, but if a Stall of some description is placed in the centre, it transforms the room into a circular parade round which the people may walk with ease and comfort—unless the crowd be dangerously large for the size of the Hall.

The principal item in a Flower Stall such as Fig. 1 is the enormous Japanese umbrella. This can easily be purchased or hired at any fancy out-

fitters, and it may either be left plain or decorated with leaves and flowers. The Stall should be circular, about five or six feet in diameter, and the interior should be entirely filled up with plants.

Fig. 2 is a more solid erection. One similar in outline to the sketch, which the writer made recently, was six feet square, and about eight or nine feet in height. The skeleton framework is of wood, while canvas is stretched over the pyramidal roof and painted in distemper as usual. A space is left in the interior so that the Stall holder may have access to the flowers and plants.

As the success of a Bazaar greatly depends on the decorations, no effort should be spared to have them as attractive as possible. In many cases they act as one of the chief "draws." The writer remembers an instance where the decorations of a Bazaar which he had charge of in a large provincial town created such a sensation that every evening the Hall was literally crowded to the door. A well-known and popular actor had the misfortune to be

visiting the town during the week, and this Bazaar craze seriously interfered with his "houses." In despair, he called upon the writer one day, stated the losses he was sustaining, and asked if there were no possible way of diverting the attention of the town from the Bazaar to the theatre. The writer could only promise to think the matter over—which he accordingly did.



FIG. 1. Japanese Flower Stall.

On the actor's "benefit night" he closed the Bazaar an hour earlier than usual, mustered an army of about fifty Stall holders and Committee members — all arrayed in fancy costume—marched these through the streets, and filed into the front rows of the dress circle in the middle of "Davy Garrick." The actors were noticeably alarmed at the strange and unexpected scene, and the well-known comedian frankly confessed afterwards that he himself had entertained suspicions as to the possibility of a general stampede from the neighbouring lunatic asylum.

In connection with Bazaars, Secretary and Committee members should always hold themselves in readiness for those numerous little hitches which invariably occur,—incidents, perhaps, which are unimportant in themselves, but which might prove detrimental to the interests of the Bazaar unless dealt with promptly. Some years ago a fashionable Bazaar was held at one of our large seaside resorts. The Countess of L— had consented to open the proceedings, and Lady H—, who had taken a leading part in the work of organisation, was to receive her at the station. The inevitable hitch intervened, however, for on the all-important morning Lady H—'s footman took ill and was unable to perform his duties. The matter seemed trivial, but it so happened that her ladyship failed to secure the services of another attendant, and thus the difficulty began to assume more serious proportions. In her dilemma she sent for the

writer, who undertook to find a substitute. As there was not a moment to be lost, he "made up" his face slightly, quickly transformed himself into a valet, and drove off to the station with Lady H—, who, it should be said, sustained her part admirably, and went through the farce without a smile. The writer saw the Countess safely out of the train, took her wraps, walked behind her up the platform, assisted her into the carriage, tucked in the rugs in the usual way, solemnly touched his hat, and again mounted the box beside the driver. He drove to the Bazaar, conducted the ladies to the Hall, then dashed off to the dressing-room, and in less than ten minutes reappeared as "Lord Chamberlain," in silk tights, velvet doublet, etc., ready to conduct the procession up the room. When eventually he stood before the Countess she scrutinised him closely, apparently being under the impression

that his face was familiar, but it was only when Lady H— explained matters that she fully appreciated the circumstances, and recognised the valet who had been so attentive in his duties.

This is merely one out of many instances—not only in the writer's own experience, but which have come within his knowledge—where a little tact may avert a serious and damaging hitch. Numerous amusing experiences could be given, but this is not a column of jokes, and the above incident is quoted merely to throw out a suggestion as

to what might be done in an emergency.

(To be continued.)



FIG. 2. Rustic Flower Stall.

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STAMPS

Week by Week.

A Philatelic Causerie by PERCY C. BISHOP,

Joint Editor of the "STAMP COLLECTORS' FORTNIGHTLY;" Ex-Editor of "THE PHILATELIC JOURNAL" and "PHILATELIC REVIEW OF REVIEWS;" Founding Member of the LONDON PHILATELIC CLUB.



THE example set by the French Government in instituting a great national prize competition for the best designs for a new series of stamps has been followed by the postal authorities of New Zealand, and with far more satisfactory results. In the case of France, the designs submitted by competitors were so uniformly unsuitable that the authorities were compelled to reject them all, and commission an artist of repute to prepare a set of designs. New Zealand, if I am to judge from a letter just to hand from Mr. H. T. Watson, an official friend in the Colony, has been far more fortunate. A long list of prize awards is issued, the most prominent winners being Mr. W. R. Bock, of Wellington, Mr. E. T. Luke, of Melbourne, and Mr. A. W. Jones, of Christchurch. All these gentlemen have chosen subjects that are distinctively New Zealandish. Mr. Bock gives a representation of the Rotomahana Terraces, destroyed by the Tarawera eruption, for the 5s. stamp; a view of the sounds for the 8d., and some kakas, whatever they may be, for the 1s. Other scenes and subjects chosen by competitors are the Sutherland Falls, Milford Sound, Mount Earnshaw, various gold mines, and a variety of choice bits of local scenery. The whole of the designs were (at the time my correspondent wrote) on public exhibition at the Academy of Fine Arts, Wellington.

But stay! there is a darker side to this pleasing picture of New Zealand enterprise. The authorities out there are apparently determined to have a finger in the speculative Philatelic pie which has enriched so many small states at the expense of the stamp collector. They have entered into an agreement with "certain persons" whereby those persons pledge themselves to take up £20,000 worth of the new issue of New Zealand stamps. Furthermore, the "certain persons" agree to pay £15,000 down, and for the other £5000 to conduct a lecturing tour throughout Great Britain, Europe, and America, during which

the climatic virtues and commercial advantages of New Zealand will be descanted upon. The dodge is charming in its simplicity. The £20,000 worth of stamps taken by the "certain persons" will never (the New Zealand authorities hope) be used for postal purposes, and, of course, the "certain persons" hope on their side to unload their stamps on the Philatelic market. Result: a clear profit of £20,000 to the New Zealand Government. And there you have the policy of an up-to-date Finance Minister in a nutshell!

—:O:—

The countries I mentioned last week as admirable subjects for the specialist's attention by no means exhaust the list.

Brazil (one of my own pet countries) is irreproachable in many respects. Brazil was the first country to follow Great Britain's lead in the adoption of the adhesive postage stamp. The earliest Brazilians are now extremely scarce, and many of those which bear the Emperor's head are becoming rare.

In Germany, where there are almost as many Philatelists as soldiers, the demand is all for the now obsolete stamps of the German cities and states, such as Baden, Bremen, Brunswick, Hamburg, Hanover, Oldenburg, Wurtemberg, etc.



The prices of these stamps steadily rise as times go on. I doubt whether the careful Philatelist who wishes to put his money into something that can be readily converted into cash could possibly find a better field than these stamps, and indeed the older stamps of



Europe generally. The great virtue of these old German issues—and indeed of all German stamps, down to the present day—is their absolute freedom from any suspicion of being issued for collectors only.

Uruguay, in South America, is a country whose stamps show a most interesting variety of colour and design. The earliest stamps of this state run into high figures already, but the present rates are nothing to what they will fetch when once collectors awake to their real scarcity. True the later issues of Uruguay are not above suspicion; but one can always afford to bar the modern trash. One word of warning in conclusion: beware of forgeries of the early Uruguayans!

Belgium, which has already sprung a distinct novelty upon the postal world in the shape of the "Sunday" stamp, is preparing another puzzle. Stamps for newspaper postage are to be sold postmarked, as witness the following official decree, for which I am indebted to Mons. Maury's paper, *Le Collectionneur de Timbres-Poste* :—

"ART. 1. Postage stamps of 1 and 2 centimes are put on sale in certain Post-offices, which are obliterated in advance for the prepayment of printed matter and newspapers.

"ART. 2. These stamps cannot be sold in quantities of less than 1000 stamps.

"ART. 3. They are obliterated by a rolling stamp bearing the name of the office and the indication of the year of the obliteration. Until further orders they are valid during that year, and the first month of the succeeding one.

"ART. 4. Articles prepaid by stamps obliterated in advance must be delivered at the window of the receiving-office in quantities of 1000, at least. These stamps are not valid when affixed to articles put into the boxes."

One can foresee a time when no one will be able to tell whether his Belgians are used or unused. A pretty state of things, truly!

—:0:—

Collectors all will rejoice to hear that Mr. L. Upcott Gill, of the *Bazaar* newspaper, has come out of an Inland Revenue prosecution, for printing the picture of a Cape of Good Hope stamp, with flying colours. The case was tried at Bow Street before Sir John Bridge, and that highly sensible magistrate took the common-sense view that Mr. Upcott Gill had a perfectly lawful excuse for illustrating his paper in the way he did; and so the prosecution failed.

The points raised by the prosecution were these: (1) the stamp illustrated belonged to the issue now in use. (2) The block employed to illustrate the stamp was of the "half-tone" variety, from which an excellent imitation of the real article could easily be prepared.

As it happens, both these points could have been combated with the greatest ease, and expert witnesses were in attendance for that purpose; but Sir John Bridge, by his common-sense decision, saved them that trouble. In a recent number of *Hobbies*, by the way, I pointed out that the law permitted us to illustrate colonial but not English stamps. The use of the word "permitted" was a slip of the pen on my part. What I meant to say was that the authorities have all along "winked at" the practice of illustrating Philatelic journals and stamp albums in this way, whereas such practice is distinctly illegal by virtue of one of the Post Office Acts.

NEW ISSUES OF STAMPS.

*. Items for this department will be gratefully received from any Philatelic readers who happen to receive early information of new issues, or of impending changes in the postal arrangements of any country.

BELGIUM will shortly contribute a new series of unpaid letter stamps of the values of 5, 10,

20, 50 centimes, and 1 franc. They will be inscribed "A payer — te betalen."

ITALY.—Says the *Daily News* correspondent: "The Papal postage stamp issued in commemoration of the 20th September, and which, of course, is only available for collections, has in the centre a vignette portrait of Leo XIII., upon a gold background, above which is written, "XX. Settembre, 1895," while below are the words: "Evviva Leone XIII., Evviva l'Italia."

UNITED STATES.—All the adhesive stamps of the current set are now reported to have been issued on the watermarked paper. I have personally seen the 3c. purple, 50c. orange, and 1 dollar black. I hear that the "Special Delivery" stamp of 10c. blue is similarly treated.

VICTORIA.—News has just reached London that a 2s. stamp of the 1885 type ("Stamp Duty") was issued in a light emerald green colour, on August 12th last, but was removed from circulation eight days later, owing to its colour being so like the 9d. This stamp should become exceedingly rare.

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CHAP. VI.

THE LIMELIGHT LANTERN AND HOW TO USE IT.

IN our last chapter we dealt with the use of the oil light, and shall now treat the Limelight Lantern on identical lines.

It is possible to purchase a Lantern, fitted for limelight, from 40s. to 50s., but it is well to have something a little better, and we illustrate two types of Lantern. Fig. 1 will cost £4 4s. complete, and Fig. 2 about £6 6s. Dealing with the cheaper one first, we may add that this is the most portable and efficient form of Lantern that can be bought. It can be used either for lime-light or oil. For the former it is fitted with a safety jet fitted with rack and pinion for raising and lowering the lime, and with a patent nipple. The special Lantern, Fig. 1, is made entirely of Russian Iron, and has a brass condenser cell. The stage and front tube slide in grooves, and is fitted with Rice's "Screw Grip" for Slide Carrier.

In the ordinary form of Lantern the Slide Carrier is held in position by springs, and will only admit of a certain size of carrier being used. The Screw Grip permits of considerable latitude in this respect, and the carrier, as will be seen by the illustration, is dropped in from the top, and the ring, with milled edge, on the front stage of the Lantern is screwed so as to grip the Slide. There is more in this than appears on the face of it; for scientific purposes, the exhibition of

botanical, entomological specimens, pond life, or chemical demonstrations, the "Screw Grip" is of great use, because it permits of special carriers being used and being held firm. With the ordinary type of Lantern, such as Fig. 2, this is impossible.

It will be noticed that there are doors with sight-holes in the side of the Lantern. The condenser is a 4 inch plano-convex, and the lens supplied is a Double Combination Achromatic, usually of 6 inch focus. The chimney when packed for travelling goes into the front of the body, and the whole Lantern packs into a box 14 by 9 by 6 inches. This is perhaps the most portable piece of apparatus on the market.

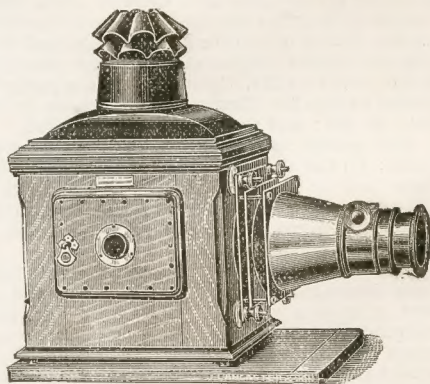


FIG. 2

In Fig. 2 we have a mahogany body Lantern, lined with Russian iron, fitted with doors in the side and sight holes, provided with 4 inch condensers, and a Triple Achromatic Combination Lens. The Lantern is of excellent quality, and at the price named will be found to be a most efficient instrument.

We will now proceed to the question of working with the limelight, and will surmise that we are going to use the house gas—hydrogen—and Brin's compressed oxygen in a cylinder. The instructions given as to a steady stand (Chap. IV) are more needed with the limelight than with oil. With the type of Lantern, Fig. 1, it is

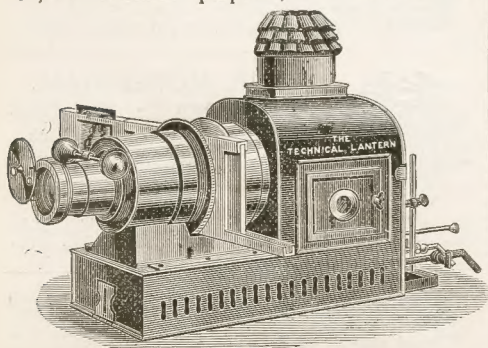


FIG. 1.

quite possible to fit up the Lantern on a tripod stand. There are stands now made for the purpose, and a very portable and rigid stand may be purchased for 30s., but we will go upon the lines already laid down.

Having procured our cylinder of oxygen, the first thing to be done is to make the same secure, and we prefer either, in the case of a small cylinder, to place it upon the table, or if a large one, to lash it to the leg of the table, unless, which is much better, it be in a specially made box which permits of the same being placed on end, and the cylinder being drawn out about 6 inches. If the operator has such a box he is relieved of much trouble, and an iron put through the box, say 6 inches from the bottom, will answer every purpose, the bottom of the cylinder resting upon it. This done, the regulator, see Fig. 3, should be fitted to the top of the cylinder,

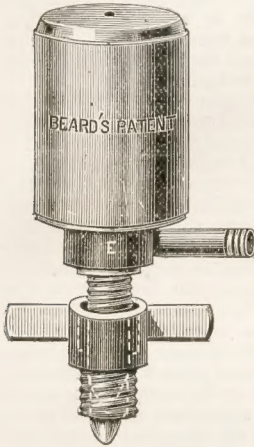


FIG. 3.

(this regulator is described on page 77, No. 4 of Hobbies). The regulator must be carefully and tightly screwed into the cylinder. In the illustration it will be noticed that a small tube projects upon this. A piece of india-rubber tube, sufficiently long to reach the jet, should be attached to the oxygen inlet of the jet. The blow-through jet, that we suggest should be used has two inlet tubes with taps, the bright brass tube conveys the oxygen, and the black tube the hydrogen, or coal gas. See that the flexible tube fits the jet, and then take two or three turns round this tube and the one on the regulator with a piece of twine and tie with a "bow." This will prevent possible leakage, and any chance of the tube being accidentally pulled off. See that the valve on the cylinder is closed and the tap on the jet. Attach to the most convenient gas bracket, or fit another length of india-rubber and bring it down to the other tube of the jet—the black tube—and secure it as described.

We will now get ready to light up. First from your lime cylinder or tin take a lime and warm it by the fire, or put it on the pin of the jet and light the coal gas just a little, so as to exhaust any moisture, and thoroughly warm before use. If this is not done the lime is likely to crack, and the pieces may fly about and possibly crack the condenser. Another object of lighting the coal gas is to warm the condenser. Before doing so see that they are not jammed in the cell, as this will often cause them to fly. All the parts of the Lantern should be warm and perfectly free from condensation before commencing. If a very cold night, the lens and condenser may well be taken out and placed in the fender or near a fire.

Going back to the Lantern we shall find the lime is getting hot, and must be revolved in order that all the surface may be warmed through. The operator having satisfied himself that this has been done, he may proceed to turn on the oxygen, hydrogen, or coal gas remaining alight, but not fully on. Before opening the valve on the cylinder see that the tap on the jet is fully on, and turn the cylinder valve very gently, in order to allow the reduction in pressure which the "regulator" secures to be made very gradually. The oxygen will soon be seen issuing from the minor tube of the jet in a fine whitish blue flame. This will now mix with the flame from the coal gas tube—the larger or outer—and the two impinging upon the lime will make it incandescent, with the result that the brilliant illuminant called the limelight will be evolved. The flame should be at a distance of from $\frac{1}{4}$ to $\frac{1}{2}$ of an inch from the lime, which must be revolved in order not to get it "pitted." If this is allowed a good clear disc will be difficult to obtain. As the lime revolves it rises or falls, as the case may be, so that, although only standing about $1\frac{1}{4}$ inches high, a constantly varying surface is exposed to the impingement of the flame. Experience will soon guide the operator as to when the lime requires turning, but we might add, that as a general rule the lime requires attention when the outer edges of the disc show a yellow or reddish fringe.

In this chapter we will go no further, but will start the next with the light ready for action, and proceed to describe a Lantern Slide Exhibition "illustrated with the oxy-hydrogen light."

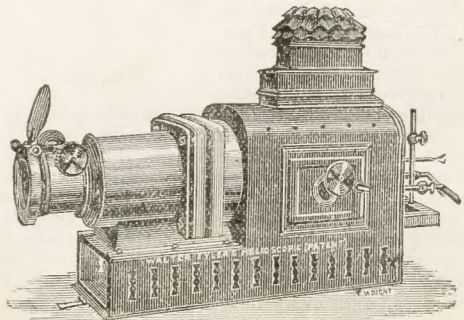
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.. FRETWORKING .. SCROLL-SAWING, INLAY AND OVERLAYING

CHAP. VI.—FIXING.

CORNERS.

IN fixing the corners of small Boxes, two methods may be adopted. One, the simpler, is to let a side or an end overlap (Fig. 22), the other to bevel the edges (Fig. 23).

The latter plan is certainly the more satisfactory and bears a less amateurish look about it.

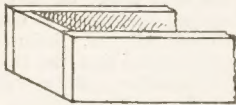


Fig. 22.

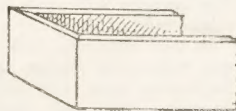


Fig. 23.

With six or eight-sided figures, bevelling is easily done with the aid of a "Shooting Board" and a small iron plane. The knife of the plane should be kept sharp, and care should be taken to have the edge of the wood perfectly straight. With eight or ten-sided Ornaments, the Treadle Machine could do the bevelling by Tilting the angle. (See Fig. 25).

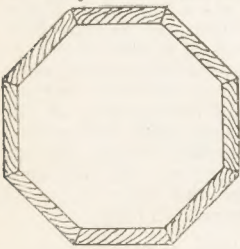


Fig. 24.

Table to a convenient size. Those who are well up in the work of dovetailing should certainly employ that method in the case of all large Boxes.

HINGES.

The adjusting of small Hinges is a task which gives the irritable Fretworker considerable trouble, and causes him to express thoughts and feelings of a more or less questionable nature in a decidedly emphatic manner. The smaller the Hinge, the greater is the difficulty encountered. The screws slip and the wood cracks, and when everything is at last fixed it is found that although the lid of the Box appears right when open, it shuts exactly half-an-inch to one side. Whereupon it is customary to conclude that the Screwdriver, the Screws, the Hinges, and everything else, are thoroughly

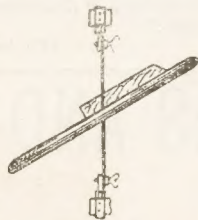


Fig. 25.

bad, and ought never to have been sent from the factory!

On the whole, fixing a small Hinge is difficult (especially when there is only about three-sixteenths of an inch of wood for a hold), and in a written article it is not easy to explain exactly how the matter ought to be done.

When the Box is to open with two Hinges as usual, fix these to the lid first, taking care that they are on perfectly straight. Always drill a hole for the screw, and only place one in each Hinge to begin with. This done, tackle the side of the Box, again putting in but one screw to each Hinge. In this way if there is any fault it can easily be remedied. If all is right proceed to drive in the other screws, testing the lid after each one is fixed. In order to let the lid shut perfectly close, the wood might be gently filed down, so that the surface will be flush with that of the Hinge. This is always done with large work and gives a better result.

In Toy Furniture, or in any article where there are small doors, and where the wood is too thin to give any hold for the screw, an upright Pin Hinge is recommended. There are different methods of doing this, but only one need be suggested. Allow that Fig. 26 represents the front of a Toy Doll's Cabinet. There are a couple of doors, the wood of which is too thin to hold an ordinary Hinge. In the first place it is strongly urged that the whole Cabinet front, as shown, should be cut of one piece—the separating of the doors being left till the end.

Drive an ordinary Pin through the wood at point A, and then at points B, C, and D, as indicated on the sketch, letting about half an inch go into the part which will form the actual door. The Pins must be kept perfectly straight, and must be driven in at an equal distance from the edge of the framing.

When this has been done satisfactorily in the four cases, withdraw the Pins, and proceed to

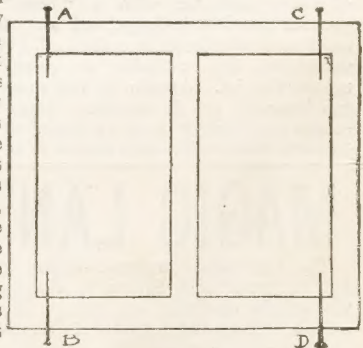


Fig. 26.

cut out the doors. A medium sized Saw should be used for this, so that the thickness of the line will afford ample space for the doors to swing back and forward easily. This done, smooth all the edges with Sandpaper, place in position, and fix in the Pins as before. If all is right, file off the Pin heads, and the Cabinet front is complete. Both doors open neatly, and yet no one sees exactly how.

PHOTOGRAPH FRAMES.

Photograph Frames occasionally cause some trouble when the time comes to fix on the rack which is to hold the Cabinet or Carte de Visite. Designers seldom think it worth their while to shew how this is done, and the Fretworker has to fall back on his own ingenuity. Whatever method is adopted, it is safe to say that the simpler the better. A single illustrative suggestion will suffice—one which seldom fails to give satisfaction:—Cut out a piece of wood, about one quarter of an inch thick, as Fig. 27, through

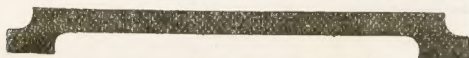


FIG. 27.

which the Photograph slides. This is fixed at the back, slightly less than half way down the oval space. Then cut a piece as Fig. 28,



FIG. 28.

one-eighth inch thick, on which the picture will rest. Fix with glue, and drive in a Pin point if necessary. Nothing more is required; the method of construction is simple and neat, the Photograph is held tight, and yet can easily be removed.

The Support for the back is usually hinged. In most cases this is found satisfactory; but if the Hinges are slack, and if the Ornament stands on a polished table, a mere touch may suddenly cause Support and Frame to dart off in opposite directions. The results are collapse and commotion. Nothing perhaps may break, but an Ornament usually bears a more dignified mien when standing upright, and any such abrupt downfall can be prevented by neatly attaching a gilt or silken cord to both Frame and Support, so that the latter may not slip beyond a few inches.

If the Frame is very small, as for Midget Photographs, it is hardly worth while to hinge the Support; it may be fixed permanently at a convenient angle.

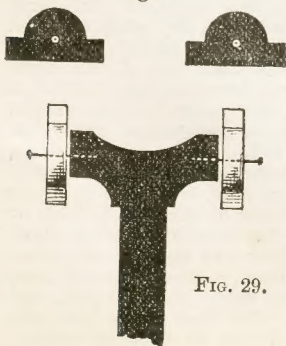


FIG. 29.

When the wood is too thin to allow an ordinary Hinge to be used, the reader should adopt the method as shewn in Fig. 29. Cut two slips of wood $\frac{1}{8}$ -inch thick, place the Support between them, and hinge with Pins or Wire Nails as described in the case of the Doll's Cabinet.

These remarks on fixing merely refer to the everyday incidents of Fretwork. Special subjects will be dealt with at another time. Meanwhile, it is important to remember that neatness of finish in putting the different pieces of an Ornament together is a feature in itself, and can only be secured by careful work.

Thus in fixing by the well known half-and-half joint (Fig. 30) it is necessary to cut each slit the exact thickness of the wood, so that both pieces of the Ornament may fit tight and not shake about.

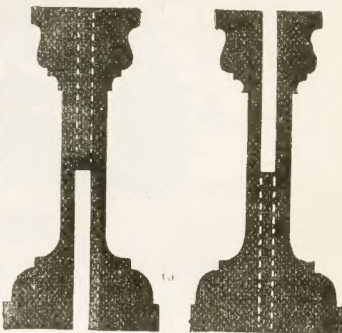


FIG. 30.

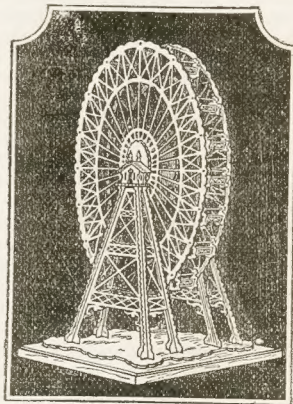
Similarly, with "notches" and "holes;" these should be carefully measured, and their positions tested before cutting out; otherwise much inconvenience will be caused. As may be seen, the system is of little use if the holes are made so large that the notches move about. At the time, a little thought in these matters will save much trouble afterwards.

(To be continued.)

The Latest Fretwork Novelty.

THE GREAT WHEEL DESIGN.

Price Complete, ONE SHILLING.

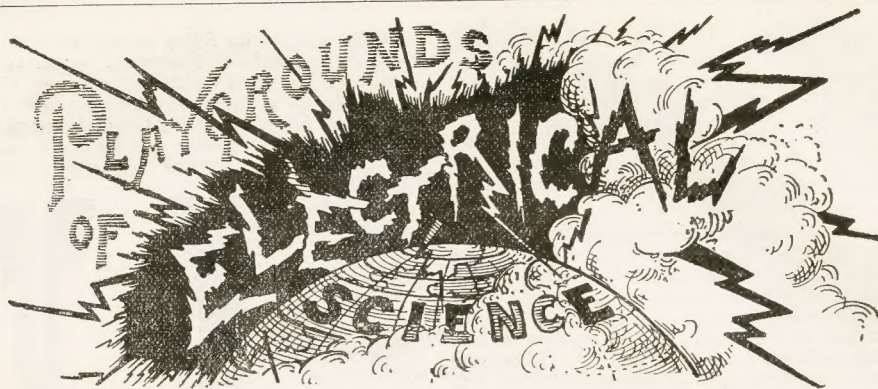


THE GREAT WHEEL DESIGN.

All Fretwork. No Framing required. All the Cars are hung on Spindles and revolve with the Wheel. Price of Design, printed on two large sheets with full instructions, One Shilling.

J. H. SKINNER & CO.,

H Dept., DEREHAM, Norfolk.



THE INDUCTION COIL. HOW TO MAKE AND USE IT.

CHAP. IV.

HAVING well varnished the Bobbin and allowed it to dry, this little article will now be ready for winding. The primary Coil goes on first, and this will consist of about a pound of No. 16 double cotton-covered copper wire. The "high conductivity wire," which is composed of very nearly pure copper, is much preferable to the common grade, and the difference in price is only very trifling. It is essential to have the double cotton covering. Now pass one end of the wire through the lower hole in the Bobbin flange from the inside, and draw about twelve inches through. Give the outside wire a bend to prevent its being withdrawn through the hole; then wind the main piece carefully along the whole length of the Bobbin, and back again to the starting end, thus forming two layers. Pass the other end of the wire through the second hole and draw tight. Great care must be taken to wind closely and tightly, but without using sufficient force to break through the Bobbin. A stout ruler wrapped with paper to fit the inside of the Bobbin tube may be inserted to impart strength if the wood should be very thin. Dilute the varnish already prepared by adding spirits of wine until it is thoroughly limpid, and give the wire just wound three good coats, letting each coat dry and harden before applying the next. If the varnish is of the right consistency, it will penetrate to the under layer of wire, and saturate and preserve the insulating covering. Cut a piece of cartridge paper the exact width between the flanges, and when the last coat of varnish is dry, wrap it neatly and smoothly round the Coils three or four times, without drawing it so tight as to show interstices between the wires; finally gum down the end. Allow the gum to dry, and varnish in three or four coats. This finishes the primary Coil. The winding of the secondary Coil is a much more delicate operation, and no pains should be spared to get it exactly right. For this, No. 38 double silk-covered copper wire is used. This is a very fine, fragile wire, and necessitates careful handling. The quantity bought may be

about half a pound, which will be found to give a little surplus; but it is better by far to have a trifle too much, than to have to join on a second piece. As it is absolutely impossible to take off the wire when once wound and varnished, it must first be tested to ascertain that there is no break in the copper. If the reader happens to possess a simple Galvanometer, wound with fine wire coils, he can easily do this for himself. Connect one end of the wire to be tested with one of the Galvanometer terminals, and the other end to the terminal of a Battery cell. With any odd short piece of stout wire make a connection between the two remaining terminals of the Galvanometer and Battery. A swing of the needle shews that a current is passing, and therefore the wire is continuous. No deflection indicates a break. Perhaps it would be better to get this done at the shop where the wire is bought, as a defective piece could then be rejected. A small hole must now be drilled in one of the flanges, level with the paper wrapping, through which to pass the end of the fine wire; then draw through a good foot as before and wind one layer carefully and closely along the Bobbin. A manufacturer would maintain a continuous test for the soundness of the silk covering during the whole process of winding; but as this would be difficult and tedious to the amateur, he is recommended to pay extra attention to his winding and insulating, so that he may come out all right in the end. Give the first layer of wire three coats of varnish, and when dry wrap it round several times with white paper, cut to a slightly greater width than that of the inside of the Bobbin. Gum down the end, and, when dry, well varnish the paper in three coats. Repeat this series of operations until the Bobbin is nearly full. As a final covering, velvet, leather, or American cloth will have to be put on, and space must be left for it on the Bobbin. The last layer of wire must finish at the opposite end of the Bobbin to that at which the secondary winding was begun; and when this has been completed, a small hole will have to be drilled in the flange, and the final end passed through. The two holes for the secondary wire, although in opposite flanges,

must be in the same horizontal straight line, for the sake of uniformity. The windings being finished, coil the ends neatly round a large ruler, or other smooth cylinder, and slip off the helices so formed.

A core of soft annealed iron wire has now to be placed within the hole running axially through the whole length of the Bobbin. This core, which may be bought ready fitted with brass or iron flanges, should be about half an inch longer than the overall length of the Bobbin, and sufficiently large to fit the hole tightly. It will be found better to buy the complete core than to attempt to make it, for although the iron wire, No. 16 or 18, can easily be cut up into the proper lengths with a pair of pliers, there will be a little difficulty in fitting on the flanges. Place the cut lengths of wire within the Bobbin perfectly evenly, so that the extremities of the bundle will present a true flat cross section; the two projecting ends might be bound with fine brass wire. But this is only suggested as a makeshift, and the properly flanged core would look much better.

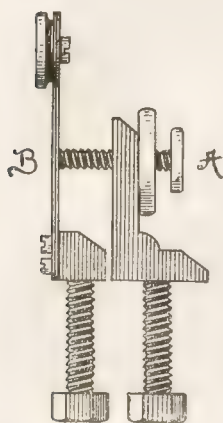


FIG. 15.

This finishes the Coil proper, but there remain to be described several fittings which would require a considerable amount of mechanical skill to make, although they can be very cheaply purchased. The first of these is the automatic contact breaker. This consists, as shown in Fig. 15, of an upright brass pillar (A), carrying a brass screw with a milled head. A milled nut works upon the screw for the purpose of tightening it in the pillar. In close proximity, though forming a separate piece, is a vibrating spring (B), secured by a couple of screws to a brass block, and carrying near the top a circular iron clapper. The two bottom screws are placed through holes in the baseboard, and the nuts screwed on underneath. The milled headed screw is tipped with Platinum, and a small plate of Platinum is also soldered to the spring where the screw touches it. Platinum does not corrode as common metals would under similar conditions. The contact breaker is placed in such a position that the iron clapper shall come in front of the front end of the iron core of the Coil. It also forms in itself part of the primary circuit, the Battery current flowing from the screw to the vibrating spring, and thence to the primary Coil. When the current is started round the primary Coil, it magnetises the iron core, which in turn attracts the iron clapper, drawing the spring out of contact with the screw. This breaks the circuit, stops the current, demagnetises the core, and the spring falls back again upon the screw, again completing the circuit. This action is rapidly repeated, and causes the necessary make and break of the primary circuit.

(To be continued.)



Our Advertising Coupon Scheme.

This Scheme, as fully described a few weeks ago, has now been in operation for a fortnight, and we hear that numerous readers of *Hobbies* are already taking advantage of what, to them, actually amounts to a Bonus of Threepence in Cash.

For the benefit of those who have now for the first time secured a copy of *Hobbies* we again draw attention to this scheme.

In future, every copy of our Weekly Presentation Supplement will contain a Coupon which, by special arrangement with our Advertisers, will, under the conditions to be detailed, be accepted by the Firms whose names are printed on the back of the Supplement as an equivalent of Threepence in Cash.

Each Coupon will be numbered and dated, and will remain good for three months. The Coupons will be accepted in payment not only for any articles specifically mentioned in the advertisements in our pages, but for any goods sold by the Firms who have agreed to take them.

The one consideration of any importance is that not more than five per cent. of the amount of any one order shall be paid in Coupons. For example, if it be desired to purchase goods to the value of 5/-, it would be sufficient to send a postal order for 4/9 and one Coupon; if the bill came to 10/, two Coupons and a postal order for 9/6 would be required; and if the amount were 20/, a postal order for 19/- and four Coupons would need to be sent. Should less than five shillings worth of goods be required, the sender of a Coupon will be entitled to a discount of one halfpenny for every shilling.

It should be clearly understood that when, for instance, goods to the value of 20/- are ordered, it is not necessary for the purchaser to buy four numbers of the current week's issue of *Hobbies*. All back Coupons should be preserved. Each is available for *three months*, and may be used at any time during that period.

Further details of the scheme, with a list of Firms who have agreed to accept Coupons, will be found on the back of the Weekly Presentation Supplement. A Table shewing the system of discount from One Shilling to a Pound is also given.

The genuine nature of this offer to readers may be seen at a glance. It practically means that an actual sum of Threepence is placed in the hands of every reader, and when it is taken into account that each week the penny copy of *Hobbies* contains a Supplement which in no case will be under threepence in market value, it will be seen that the real worth of a single number of *Hobbies* is SEVENPENCE, and that every reader thus secures a return of 600 per cent. for his outlay.

BENT IRON WORK

CHAP VI.—WALL HOOKS.

ALL last chapter was devoted to the making of a small Letter Rack. Not that the Article itself was of any outstanding merit, and deserved such marked attention; but when the reader fully understands the principle of the work, he will choose his own particular methods, and will be independent of any manuals or instruction books. Trusting therefore that previous remarks may have been so far successful in explaining how Ribbon Iron should be bent into form, all detail matter will be left alone in dealing with future illustrations, and any observations will be confined to

arrangement helps to strengthen the Frame, and if fitted well together it will stand a fair strain.

If the Hook is wanted to suspend some hanging flower pot the matter is different, and a solid Iron Frame, say about three-eighths of an inch wide by one-eighth inch thick, must be secured (See Fig. 40). In the latter case the Strip Iron would also be three-eighths of an inch wide; but with the former method one-quarter inch material would be sufficient.

In the Hook there is one S scroll and one small circle, the other figures are all C curves. In bending these forms there will be no difficulty, the chief care being required when the different pieces are put together. The framing should be clamped first, and it is recommended to do this at points A, B, C, D, and E (Fig. 38), the Collars being placed on in alphabetical order. This means that the two horizontal strips are first clamped together, and afterwards attached to the upright pieces. The actual framework is of course greatly strengthened when the other Collar Bands, which unite the curves to it, are finally fixed.

For all the important Collars it is necessary that Strip Iron three-sixteenths inch wide should be used; for some of the interior ones Tin will be sufficient. In saying this, however, it is well to add that if all the Collars are of the same material and of equal width the effect is better, and the finishing looks more "workmanship."

The Hook will require a Wall Plate; this may be of wood, either in plain or in ornamental form. If the reader has a Fret Saw he can attempt something in the style of Fig. 41;

but a plain piece of wood, neatly cut out and bevelled, seldom looks so humble that it ought to be despised.

If an Iron Plate were preferred, it is suggested to adopt the following

FIG. 40.

plan, which will dispense with the necessity of getting a piece of Sheet Iron specially cut:—Take a strip of ordinary Ribbon Iron, one-half inch (or more) wide, and bend the ends over, either as Fig. 42 or Fig. 43. A little variety might be added by

general hints which may be specially applicable to the Article shewn.

Fig. 38 represents a Wall Hook, on which any light basket or other orna-

ment can be suspended. The sketch is again about half full size. It will be seen that the angular framework is merely of Ribbon Iron, and is in three separate pieces, as Fig. 39 indicates. This

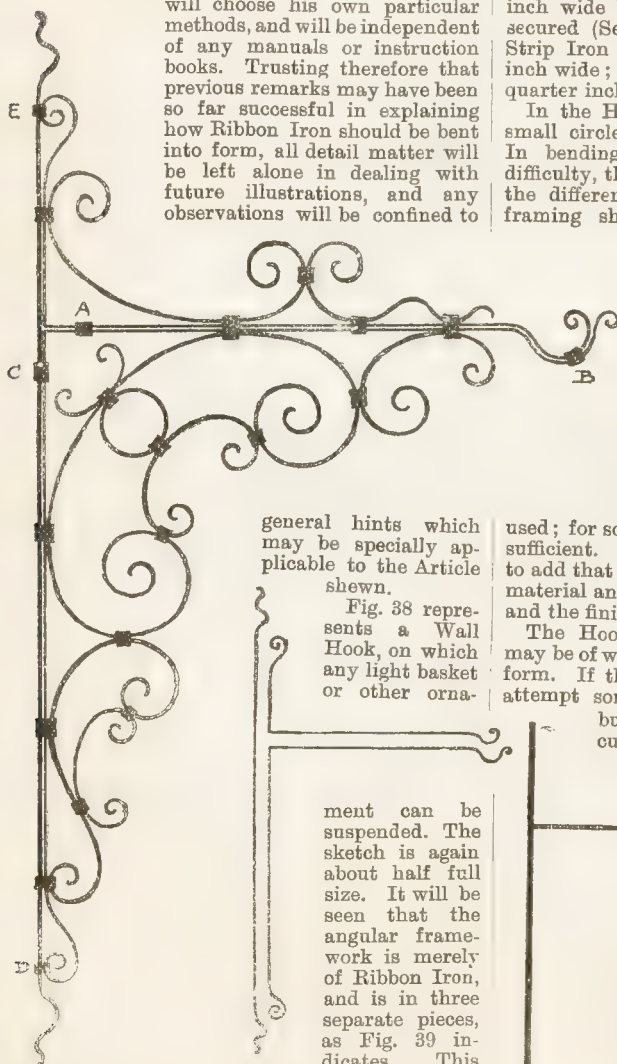


FIG. 38.

FIG. 39.



Fig. 41. should be about one-quarter of an inch longer than the combined thicknesses of the Iron, and drive it in carefully. If the Iron were strongly heated, the Screw would go in without the slightest exertion. It should be driven tightly home, the point then nipped off,

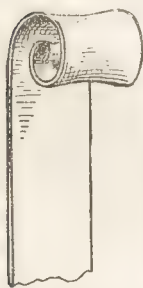


Fig. 42.



Fig. 43.



Fig. 44.

and the head filed smooth. A Screw with an ornamental round head could be used if preferred. When holes are drilled for these Screws, care should be taken that the strips of Iron are lying perfectly flat, as any irregularity looks extremely bad.

STRONG HOOKS.

For all Brackets and Hooks which are called upon to bear a heavy weight, the triangular form of Frame (as for example in Fig. 45) is certainly the best. These can be bought ready-made, and besides can easily be constructed to any given size. For Gongs, Lamps, and Flower-pot holders, no other should ever be used. The weight of Frame depends on the purpose for which it is wanted; but as one of the features of Bent Iron Work is delicacy, it is recommended that the reader should err (if he errs at all) on the *light* side. Iron is really more durable than it looks, and the "gibbet" form of Frame is specially intended for strength.

FIGURE 45.

An illustration of this Bracket has been given for the benefit of those who are not endowed with a "designing" faculty, and who, although they have their Tools, Frames, and Iron, are at a loss to know how to arrange their curves and scrolls. Such a Hook as

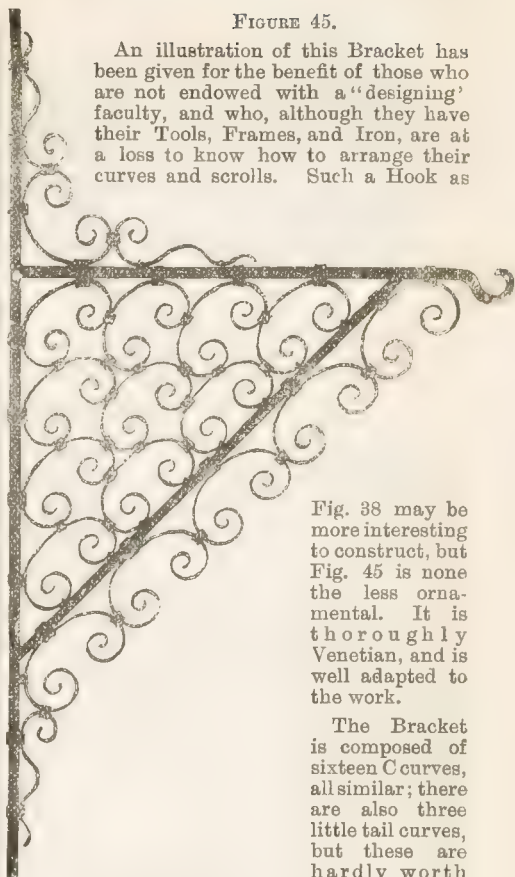


Fig. 38 may be more interesting to construct, but Fig. 45 is none the less ornamental. It is thoroughly Venetian, and is well adapted to the work.

The Bracket is composed of sixteen C curves, all similar; there are also three little tail curves, but these are hardly worth considering.

Fig. 45.

The reader, however, must not delude himself with the idea that this pattern is as simple as it may appear. There is no difficulty in bending the curves, but a good deal of patience is required in fitting them up, and if the worker is the unhappy possessor of a questionable temper, he had better make his Bracket in one of the less frequented parts of the house. The difficulty of fixing is owing to the dogged stubbornness of the curves, and their unanimous determination to lie in every position except the one in which it is attempted to place them. This is somewhat natural, and they must be humoured, coaxed, and indulged. It does little good to speak to them. The curves must be "cooked"—to use a vulgar expression; one must be drawn out slightly, another compressed, and so on till they are finally right.

What will be seen from Fig. 45 is that numerous Ornaments can be made from the simplest pattern. The curves may be turned so as to face inwards, they may be of any size, they may be rounded or flattened in form, the spiral ends may be large and open or small and tight; in fact the reader will see at a glance that, with a large number of C curves, he may construct almost any class of Ornament; and if he but possess half an eye for mere arrangement, he need not worry himself to death in hunting after Designs.

(To be continued.)



NOTES OF THE WEEK.

MR. PAUL LANGE, a delightful worker and a clever lecturer, gave the last lantern slide exhibition at the Royal Photographic Society on the 13th inst. The exhibition closed its doors on the 14th. We understand that it has been well attended, and that the "gate money," although open for a shorter period, is quite equal to previous years.

One of the latest novelties is the "Tintometer." By the use of this instrument "colour can be measured, analysed, and recorded." It is described as a species of "ocularless stereoscope which allows of an object being viewed under conditions excluding all light, except that reflected from the white background against which the coloured article is seen." The colour is then matched, or analysed by the careful use of a series of standardised red, blue, and yellow glasses, until the desired result is got. In analysing coloured inks for three-colour work, in the determination of plate speeds and in other respects more intimately connected with photography, the Tintometer, says the *Photographic News*, is susceptible of being employed.

Mr. S. W. Allen, a very active member of the Cardiff Photographic Society, has just been showing his patent automatic science Lantern. The main feature of the Lantern consists of a sliding box or magazine divided into compartments, sliding beneath the optical portion of the Lantern. The slides, to any number, are placed in this magazine, through which a vertical plunger passes and takes each slide into position, the same movement working a dissolver of celluloid which rises and dissolves the picture on the screen. A handle with cranks on each side of the slide chamber is revolved, and upon the centre spindle of the crank a cam is fixed. This, in connection with a ratchet, lifts one slide at a time and places it in position. We understand as many as fifty slides can be passed through in 25 minutes.

It would be often very handy to be able to graduate a glass measure for one's own special wants; such a measure may be marked or graduated in the following way. First fix a strip of gummed paper, about three-quarters of an inch wide, vertically on the glass, taking care that it is long enough to come slightly above the place where the ten-ounce mark will be. When the gum is dry and the paper firmly

secured to the glass, pour exactly ten ounces of water into the bottle, and when the water is level mark on the strip of paper, empty, and put in other quantities as may be required. When satisfied of the accuracy of the graduations marked on the paper, file with one edge of a fine triangular file. When all the lines have been well cut in, the paper can be removed and the marks deepened.

The *Optician* states that Messrs. Wellington and Ward, who are makers of photographic printing papers, "claim to have the largest coating room in the world! They can coat one-and-a-half miles of paper at one go."

From time to time we have made mention of 10 per cent. solutions in connection with photographic manipulations. Quite recently a short article upon the subject was published in the journal of the Hackney Photographic Society, in which the writer says:—"When we keep to ounces, a ten per cent. pyro solution is perfectly practical, for 10 ounces of liquid in which an ounce of pyro has been dissolved will undoubtedly contain in each ounce $\frac{1}{10}$ th of an ounce of pyro. But at present, when we talk about 10 per cent. pyro solution, we mean that 1 grain of pyro shall be contained in 10 minims of water, for in one ounce or 480 minims of water there should be $\frac{1}{10}$ th of an ounce or 48 grains of pyro to make up the whole solution. At no very distant date we shall hope to refer at some little length to this question of 10 per cent. solutions. It is an exceedingly interesting one, and the photographer who has once adopted the principle will not readily revert to the old form of constructing photographic formulæ.

Photography played its part at the recent opening of the Blackwall Tunnel, and we understand that the work was given to the "Stores." Professional photographers are much put about because of this slight to them.

Mr. Andrew Pringle is a photographic expert of great experience, and on the 20th presided at the Photographic Club, upon the occasion of a Limelight Jet Competition.

If any of the readers of *Hobbies* would like to help in the formation of a small Lantern Slide Exchange Club, we shall be very pleased to help them, and will find 100 slides to make a start with. Our idea would be that members should undertake to give lantern slide exhibitions in

poor districts, and that they should all contribute from 10 to 50 slides to the common stock. We shall be glad to hear from any one who will help forward this scheme.

Mr. J. O. Gibson (Hexham), the president of the Newcastle Photographic Society, in his inaugural address said:—"Photography seemed to have taken a higher place in the commercial world. It had become a necessity with the illustrated papers. Colour photography was yet a dream of the future. It seemed something like the end of a rainbow, which the boy chased and was always chasing. He fancied they would never see any practical application of colour photography. * * * * * A great advance had been made in the manufacture of plates. This was due to a great extent to the cheapness of silver. When he commenced photography he had to give as much as 4s. 6d. an ounce for nitrate of silver; the last he bought, a few weeks back, cost 1s. 9½d.

From Sydney we have just received the September issue of the "Australian Photographic Journal" which is conducted on most admirable lines, being in every way up-to-date. They write very determinedly upon the recent imposition of a duty on sensitised paper in Victoria. It appears that a duty on sensitised photographic papers of 15 per cent. has been suddenly imposed, with, as the editor affirms, the acknowledged object of subsidising one individual firm who employ a few hands in the manufacture of one or two varieties of this article of a quality unsuited to the requirements of many regular users. The strenuous and united opposition of the Victorian photographers, and the placing of their claims before the authorities, has resulted, we are pleased to find, in the striking out of the obnoxious clause imposing the duty.

We notice that the Second Inter-Colonial Exhibition of Australasian photography will be held at Melbourne in April next. The schedule of classes is extensive, and a very liberal supply of prizes are placed at the disposal of the Judges. The Exhibition is under most distinguished official patronage.

It will give us much pleasure to report upon photographs or lantern slides, either under "Answers to Correspondents" or by letter. In this latter case stamped and addressed envelope must be sent for return of photographs, &c. Lantern slides must in all cases be sent carefully packed in boxes. Those taking up photography or lantern work and wanting information as to what apparatus is required, or hints on manipulation, are invited to write us.



THE PHOTOSCRIPT For Tinting Negatives.

Full particulars and Specimen Photograph named with the Photoscript free on application.

H. LINDNER,

170, FLEET ST., LONDON, E.C.

MAKE YOUR OWN FENDERS.

Three different Fender Top Patterns, One Ashpan Pattern, 1/6 free, or 6d. each. Kettle Stand and Iron Stand Pattern given to every purchaser.—TULLOCH, Dealer in Fretwork Materials, Millfield, Sunderland.

PRIZE Competitions.

It is our intention that all Competitions which will be announced from time to time in this column shall be decided by the skill or ingenuity of the Competitors, and not be in any way dependent on chance.

INDOOR HOBBIES.

Two Prizes of Ten Shillings and Five Shillings are offered for the best suggestions for a New Indoor Hobby. Paragraphs must not exceed 200 words in length, and in deciding this competition the novelty and practical character of the suggestions will be chiefly taken into account. Communications, marked "Indoor Hobby," must reach us not later than December 14th.

FRETWORK DESIGNS.

Two Prizes of Ten Shillings and Five Shillings will be given for the best outline sketch of a Fretwork Card Receiver. Size, style, and treatment are left entirely to the Competitor, but the artistic and original nature of the Design will have considerable weight with the adjudicators. Sketches will be returned if a fully stamped and addressed envelope is enclosed. Parcels, to be marked "Design," should reach us on or before December 21st.

FRETWORK.

Three Prizes for the best Midget Photograph Frames made from *Hobbies* Presentation Design No. 1 are offered:—

First Prize, A Treadle Fretwork Machine, with Nickel Plated Tilting Table, Dust Blower, and Emery Wheel.

Second Prize, A Finely Nickel Plated and Polished 14-inch Hand Fretsaw Frame.

Third Prize, One Gross of the best Fretwork Saw Blades.

The choice of wood, method of cutting, and all matters relating to the actual work are left entirely to Competitors. The Frames, for example, may either be polished or left plain. All Frames should be packed securely, in a cardboard box if possible, and must have the name and address of Competitor clearly written on a label which must be securely attached to the Article itself. Frames sent in for Competition will be returned, if desired; for this purpose a fully addressed and stamped label must be enclosed. In no case can Articles be returned unless sufficient stamps are sent to cover postage. Parcels should be marked "Frame," and must be received at our office to-day.

PHOTOGRAPHY.

We will give every month a prize of Ten Shillings for the best Photograph, not to exceed 7½-in. by 5-in., and Five Shillings for the second best. The choice of subject is left entirely to the Competitor. Photographs cannot be returned, and we reserve the right to reproduce any of them in *Hobbies*, if thought desirable. Photographs for Competition will be received up to the last day of each month, and those for the first Competition must be sent to our office not later than November 30th, marked "Photo."

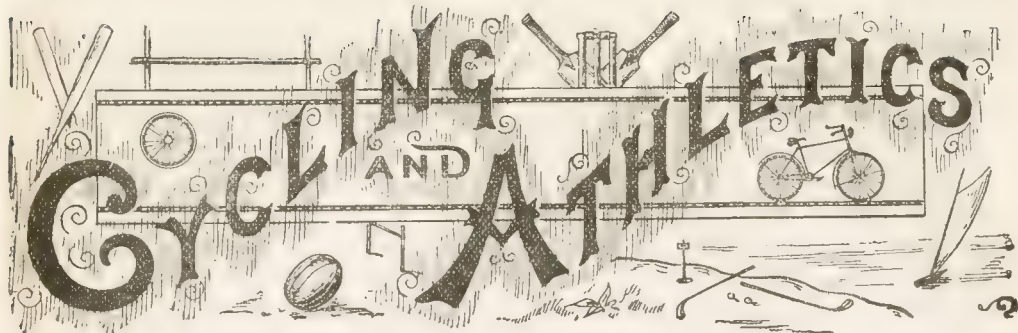
LANTERN SLIDES.

For the best Pen and Ink Sketch of a set of three original humorous Magic Lantern Slides we will give Ten Shillings, Five Shillings being awarded to the second best. The subjects are left entirely to Competitors. Sketches should be full size, and should be drawn in Pen and Ink only. The Prize Sketches, if of sufficient merit, will be reproduced in *Hobbies*. Mark "Slides," and send in by December 7th.

NOTICE TO COMPETITORS.

All Articles, Sketches, etc., for Competition should be addressed to the Editor of *Hobbies*, Bouverie House, Salisbury Square, London, E.C. The name and full address of Competitor must in every case be sent.

NOTE:—No correspondence can be entered into with Competitors, and all awards made will be final.



NOTES ON SPORT.

CROSS Country running is very popular in the London district, and in fact the Metropolitans have always been particularly strong at this sport. Certainly the Birchfield Harriers of Birmingham have secured the lion's share of the championship contests, while other provincial clubs, notably the now defunct Moseley Harriers, also of Birmingham, have figured prominently, but the game is on the whole perhaps more popular in London than anywhere.

Several interesting events have recently been decided. The old established Thames Hare and Hounds Club ran off its short distance Cup race a few days ago, victory going to H. Flack, once a champion of Australia. The Highgate Harriers ran a 4½ open cross country handicap, for which no less than 97 names were sent in.

The London Athletic Club decided a 2 miles steeple-chase members' event the other day. This has always been a popular contest with the L. A. C. men. Only two runners turned out, and champion Wilkins was easily beaten by C. S. Sydenham.

The South London Harriers have produced a very fine runner in the person of R. N. Hibbs, who is expected to become a hot favourite for championship honours later in the season.

Rugby football still flourishes, although we have heard but little lately of the recent proposals to alter the character of the game by reducing the number of players, and effecting other changes in the rules. We confess to a strong feeling of conservatism on this question, but putting this on one side, there is every reason to believe that the reformed game would be faster and more interesting than the present one. Two forwards less on either side, that is four less in the pack, must make a difference, and tend to keep the game more open. The abolition of "line outs" should also prove a gain, as at present the throwing out business is a tedious process, almost invariably terminating in a tight pack.

Now that the leading Clubs are so busily engaged, there is little chance for experimental work, but we quite hope to see the new system given two or three thoroughly good trials before long.

Several important Rugby matches have recently been decided. Lancashire gave Cheshire a very severe beating, while Midland Counties and Western Counties made a draw of it; Newport continues its successful career, Cardiff scored a rather lucky win over Moseley, while the powerful Bradford club has been defeated again.

In Association work there is little calling for special attention. Aston Villa continues to strengthen their position, while their nearest opponents, Bolton Wanderers, have lost a point through making a draw with Sheffield Wednesday.

There is plenty to be said on both sides respecting the introduction of the paid or assisted player in Northern Rugby football. Many of the arguments in favour of what has taken place are sound, but we think undoubtedly that the Southerners are in the right, and have taken the best and wisest course.

Those who wish to make money at football, and those who cannot afford to stand the "lost time" sometimes involved by playing, should embrace the Association code. There is no lack of sport for the paid and the amateur player, and that being so, by all means let us keep Rugby for amateurs as far as possible.

The Cyclist Touring Club Gazette for October contains a remarkable list of applicants for membership, not far short of 300 cyclists having applied for admission, and this in spite of the fact that the year has but a few, essentially non-touring weeks, to run. Probably most of this enthusiastic 300 will have paid their subscription twice before they so much as mount a bicycle.

The Gazette contains the usual large number of letters to the Editor, many of which are interesting. There is also a short article on the "lever" chain from the well known pen of Douglas Leechman, who does not hesitate to condemn the innovation. His demonstration of the fact that the "lever" shows no mechanical advantage over the plain chain is rather different to anything we have seen before, but we think a more explicit and simpler proof that the plain chain is as good as the other is possible.

It is felt very strongly that something must be done before next season's racing begins—to settle the eternal amateur question on a better basis.

It is a well known fact that the gentleman amateur has been steadily driven from the path, and that in spite of the best efforts of the National Cyclists' Union, the manufacturers' nominee has to a large extent taken his place. It is abundantly evident that the Union is quite unable to cope with the difficulty; in fact the governing body itself is by no means free from "trade" influence.

We are sorry that the motion to allow riders of all classes to compete together was thrown out. Had it been carried, it would at least have brought matters to a head. Anything almost seems better than a continuance of the existing farce.

Another proposal is to go in for three classes, viz.—"Amateur" class, "Business or Trade riders," and "Professionals." There is something to be said for this as a temporary arrangement, but in Scotland and in America it has not worked well.

Those who like winter riding now have their opportunity, and we may here remark that although this branch of the pastime seems unattractive to many people, it is by no means so bad a sport as might be imagined. A stout machine with complete mudguards is of course a *sine qua non*. Non-slipping tyres should also be used, and novices should be careful how they tackle the winter's mud. The only danger to be feared is from a side slip. When there is little traffic there is not much to be feared from this, especially in daylight and at a moderate speed. Well used main roads as a rule get very greasy and dangerous, but bye-roads are generally passable, even in the worst weather.

The winter day's ride should as a rule be taken at medium speed, and the distance should be kept down. A low gear is much to be preferred to a high one, and for muddy roads anything above 60" is a mistake, except for special riders.

If greasy roads have to be tackled, great care should be exercised, but for all this confidence is everything, and the man who rides best over grease is he who is most assured of his ability to keep his seat. A novice should never hesitate to dismount and walk should he find himself involved in an inconvenient amount of traffic on a slippery road. A slip when the road is clear may mean nothing worse than a slight accession of mud to the clothing, but in a crowded street it has brought serious injury and even death to cyclists on more than one occasion.



No. 6. "ADAMS" FRAME,
For Mirror, Photograph, Miniature,
Picture, or Plaque.

CARVING PATTERN.

This is the first Carving Design which we have presented with *Hobbies*, and it is one which requires some little skill in working out. The style is after the famous Adams, and the Frame is adapted for holding a Photograph or Mirror—or, indeed, anything which is intended to be put within an Ornamental Frame.



The Design has been prepared for those who have already had some experience in Wood Carving, and can hardly be recommended as a useful Pattern for beginners. Before long we shall present some Chip Carving Patterns, which will easily be within the range of younger amateurs.

Those who have done any good work in the Adams or Louis XVI. style can have no difficulty in attempting this small Frame. Vases, Ribbons, Husks, and Beads are well-known characteristic features of both these beautiful, if somewhat severe, styles, and their treatment here is on the whole simple. The outline is not intricate, there is little undercutting required, and as the relief is not high, no laborious modelling is necessary.

Owing to the small size of the article a choice piece of wood with an even grain can easily be obtained. As for the particular wood to be selected we cannot here give definite advice, as so much depends on the use to which the Frame is to be put when made. Mirrors

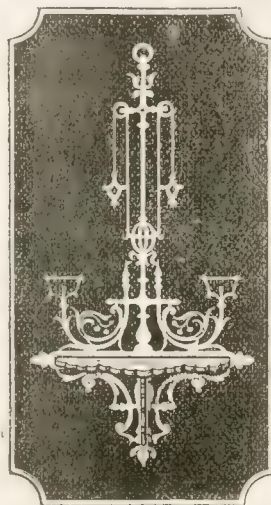
and Photographs seem to suit themselves to almost any wood, but with Miniatures and Plaques the question of colour has to be carefully considered. A great deal of modern Adams work, especially with Mirror and Picture Frames, is executed in Enamelled White or Gilt, and if it were desired to finish the article in this way, some fairly soft white wood should be chosen. If, however, the Frame is to be stained or polished, Walnut might be used, or Mahogany if the Carver knew his material well. Oak is not recommended for this class of ornament.

With regard to the actual work, Wood Carvers—professional and amateur—have all their own particular methods, and preferences for certain tools, so that suggestions from us are not required. A few sections are shown on the diagram, but the Pattern has been carefully drawn and transferred, and an effort has been made to secure the effect of relief by slight line shading. In this way it is hoped that the Carver will be able to catch the true spirit of the Design. An indication of the round by shading is usually more instructive of *feeling* than by a confusing series of sections. At the same time all the necessary working sections are given.

[Additional copies of this Design may be had, price 3d. each, on application to the Editor of *Hobbies*, Bouverie House, Salisbury Square, London, E.C. The Presentation Supplements will be given during the current week of publication only, and will not be supplied with back numbers of *Hobbies*. All additional copies of the Designs will have the Threepenny Coupons, which are available for three months after the date of issue.

Bevelled-edge oval Mirrors suitable for the "Adams" Frame, size $5\frac{1}{2}$ in. \times $4\frac{1}{2}$ in., may be had from the Editor, price 1/6 each, securely packed and post free.]

No. 7. "GASALIER" BRACKET.



The above sketch is a miniature of the full-sized Pattern for a Fretwork Wall Bracket, which will be given away with each copy of next week's issue of *Hobbies*.



* * * All communications to be answered in these columns should be marked "Correspondence," and must be addressed to the Editor of *Hobbies*, Bouverie House, Salisbury Square, London, E.C. In no case can we reply to enquiries by post.

BAMBOO WORK.

J. M. CUMMING.—We have a series of illustrated articles on Bamboo Work already prepared; these will appear in *Hobbies* as soon as we can find room.

BOOK BINDING.

W. MARTIN.—We fully intend to deal with amateur Book Binding later on.

ELECTRICITY.

"ELECTRICAL."—(1.) The lead foil you enclose will do for the purpose mentioned. (2) Lugs are merely pieces of lead cut from the same material as the accumulator plates. (3 & 4.) If the lugs are turned down towards each other they will meet and may be soldered together; no wire is required.

FRETWORK & CARVING.

H. SHAW.—Which would we advise you to buy,—A 12 inch Hand Fretsaw Frame with the Saw blade adjusted to face any way, thus allowing a piece of wood 24 inches long to be cut, or a Treadle Machine with an 18 inch arm? Such a Hand Frame as you describe is undoubtedly a good article, and will do capital work, but if you can afford a well made Treadle Machine, you should certainly purchase one. The price is the only consideration, and if you are past the initial Fretwork stages, you will find the Treadle Machine a great saving of time and trouble. At the same time there is no fault to find with the Hand Saw you speak of, as it is a most useful and serviceable article.

J. F. W.—You can easily bevel the edges of Fretwork Articles by using a Shooting Board and Plane; or if you possess a Treadle Machine, tilt the table heavily to one side and proceed to cut.

LEBANON.—Yes, there are two Cedar woods,—Spanish and Red. The former is the kind which cigar boxes are made of; it is something like Mahogany in appearance. Red Cedar is used for lead pencils.

PHOTOGRAPHY AND LANTERNS.

WELLINGTON.—Your work is quite up to "Society Competitions." In *a* you should have paid a little more attention to the placing of the second figure. *b*. Three quarter face is usually better than full face. *c*. In landscape work do not attempt to get too large a view on the field of your negative.

H. McLACHLAN.—The subject you wrote about, *i.e.*, a "Lantern Slide Exchange," is referred to under "Notes of the Week." We shall be delighted to help you in every possible way, and you will see that we make a definite offer.

J. PELLIGREW.—The French dry plate labelled 12 cm by 16 cm is identical in size to our $6\frac{1}{2} \times 4\frac{1}{2}$ or half plate.

DETECTIVE.—The best lens you can use is an R.R., of 5 or 6 inch focus, and if you work at f/8 you should get good negatives. For such work as you describe you will require the subject well lighted from the front.

E. T. DAVIS.—Don't run away with the idea that because you have got a negative, in which certain parts of it are clear glass, you have something to be proud of; such a negative will turn out prints which show very strong contrasts. A light veiling or stain is as a rule no detriment to a negative.

HARRY.—No question will be too elementary for us to answer. If you wet the corner of the paper with your tongue, you will soon discover which is the side to place next the negative.

PERPLEXED.—You evidently packed your negatives, before they were dry, in newspaper. It is not likely that you will be able to remove the impress of the printed matter. We can only advise you to rub the negative lightly with a wad of wool saturated in alcohol or methylated spirits.

COLEMANE.—The price of the lens you require should not exceed £2 10s., fitted with Iris diaphragms.

MACKER.—It is gratifying that at least one reader of *Hobbies* wishes to apply art to his photography. We would advise you to study carefully Mr. H. P. Robinson's admirable and instructive book, "Picture Making by Photography." It is published at 2s. 6d., and can be obtained of any Photographic dealers, or our publishers will obtain a copy for you.

DON CARLOS.—We cannot recommend a plate for hand camera work. Use any good make and then in the words of a well known advertisement you will say:—"Since when I've used no other."

SCHOOLMASTER.—A three wick oil lantern will do all that you require for class room use. This, as we said in a recent chapter on lanterns, may be bought for 30/- Such a lantern will quite answer your purpose as a start.

CHARLIE.—You will be able to get a very useful camera, with lens, tripod, &c., for a guinea, $\frac{1}{2}$ plate size. We do not advise the hit. When you have made up your mind how much you will be able to spend, write to us and we will give you a list of what you will really want, and the cost.

METAL WORK.

OLD EDINBURGH.—Repoussé Work will certainly be treated in *Hobbies*, but we cannot give the exact date. Your other questions are too comprehensive to answer in this column.

STAMPS.

E. D. T. (Blaina)—your stamps are returned with values marked. Several we have marked simply "torn" or "damaged." Such stamps are absolutely worthless, unless they happen to be very scarce varieties. The small square stamp which puzzles you so is a United States 3c. blue issue of 1869. Its blue has disappeared, driven out probably by exposure to sun or damp.

H. M. (Brighton).—The Queensland you send is a fiscal stamp, worthless to a stamp collector.

P. R. (London, N.)—There is all the difference in the world between the rare "V.R." English and penny red English stamps bearing other letters in the corners. These latter are mostly very common, and saleable only by the thousand or hundred-weight.

W. A. G. (Colchester)—Four of your stamps are English, one German, and one Swiss. We have marked them "E," "G," and "S" respectively. All are extremely common.

X. Y. Z.—The New Zealand 2d. blue, which sold at auction for £7 10 0, would be the 2d. stamp of the first issue, unperforated and unwatermarked.

J. S. (Maidstone).—The two Queenslands you describe are worth, in good condition, 1/- The New South Wales 6d. mauve, if unperforated, is worth 5/-; if perforated 6d.

Guillaume's penny English stamps, "taken from a letter dated 1876," are probably of very little value, but we could not say with certainty from such a meagre description.

A. A. A. (Guernsey).—Asks for a list of English plate numbers. We shall try to find space for this next week, not in the correspondence column, but on the stamp page, as it is a matter that will interest many.

Photographic Hints for Amateurs.

PHOTOGRAPHING FLOWERS.

When photographing bouquets of flowers, wreaths, &c., a background of a light French gray tint is desirable.

WASHING FILMS.

These, if stout in substance, may be washed like plates and placed in the grooves of the ordinary racks; if thin they require a special rack, or may be suspended in the washing tank by means of clips.

PRINTING FROM THE NEGATIVE.

Examine the paper before putting into the printing frame in a very subdued light. A stray diffused light is best for printing from ordinary negatives. Never print in direct sunlight. If the negative is *thin* superimpose tissue paper, and print out slowly.

PHOTOGRAPHING ANIMALS.

Horses or cattle are usually photographed in such positions as will best show off the points, and for this purpose a side view or profile is to be advised. It is well to see that all four legs and the tail are visible. Some photographs of animals showing three legs and a tail, or perhaps only two legs and no tail, border upon the grotesque. Care must be taken not to photograph the animal too much "head on," or else all symmetry and proportion is lost.

PHOTOGRAPHING MACHINERY.

The brights parts of machinery may with advantage be coated with slate-colour flattening, or a mixture composed of milk and carbonate of Magnesia. Care should be taken to exclude front light. A perfectly plain background is desirable; nothing looks worse in a photograph of a fine piece of machinery, which has for the background a tumble-down shed, or worse still, a surrounding of other machinery dreadfully distorted and out of focus.

THE FERRO-PRUSSIAN PROCESS.

This process is largely used for copying drawings, and is thoroughly reliable. To coat the paper make up the following:—

No. 1.			
Ammonic-citrate of Iron ...	4	ozs.	
Water ...	14	ozs.	
No. 2.			
Ferri-cyanide of Potassium ...	2½	ozs.	
Water ...	15	ozs.	

In practice take equal parts of Nos. 1 and 2, and coat evenly with a camel's hair brush any sort of paper, it should be tough, not too thick, and have a fairly smooth surface. After coating dry quickly. When dry it should be a light yellowish-green colour. Print in daylight till almost all detail is lost, then wash in cold water till the print shows up clearly in a bright blue colour, and the lighter part or lines are perfectly white. Always use freshly-coated paper.

IMPORTANT NOTICE.

The Supply of Back Numbers.

REPRINT OF NOS. 1 AND 2.

The first and second numbers of *Hobbies* having been long since sold out, while the demand for them shows but little sign of abatement, we have thought it advisable to have these numbers reprinted, so that recent Subscribers may be enabled to complete their volumes.

We hope to have them ready in the course of a week or so. Copies may be obtained through any newsagent, or price 1½d. each direct from the publishers. For a few weeks these two numbers will be sold at this price with Presentation Designs, complete.

All other back numbers, but without Designs, may be obtained in the same way. Copies of any of the Presentation Designs may be had, price 3d. each.

SPECIAL OFFER TO ANNUAL SUBSCRIBERS.

ST. PAUL'S CATHEDRAL.

An illustrated description of a remarkable Design for a Fretwork Model of St. Paul's Cathedral will be found in *Hobbies* No. 1. We propose to present a copy of this elaborate and strikingly original Design to everyone who sends postal orders for 6/6 for a year's subscription to *Hobbies*. The subscriber will thus receive by post every week for one year a copy of *Hobbies* with the usual Weekly Presentation Design, the value of which will never be less than threepence, and as a special present the Design for the model of St. Paul's, the price of which is half-a-crown. Any weekly subscriber who may wish for a copy of the St. Paul's Design can obtain one on sending a postal order for 2/6 to the Editor of *Hobbies*, Bouverie House, Salisbury Square, London, E.C. The offer to annual subscribers necessarily applies only to those sending their subscriptions direct to the Publisher at this office.

NOTICE TO CONTRIBUTORS.

The Editor of "*Hobbies*" is always ready to receive Suggestions for Articles for insertion in the paper. Any manuscript sent for his consideration must however be accompanied by a fully addressed and stamped envelope. Unsuitable contributions will be returned without avoidable delay, but it must be distinctly understood that the Editor will not hold himself responsible for the loss of any manuscript.

Hobbies that Pay.

THE AMATEUR IN THE DAIRY.



HERE was never a more suitable time for amateur enterprise than the present. Small paying industries are being developed on all hands, and old systems are being simplified or superseded. Land, too, is much more easily obtained than formerly.

Dairying—that is to say cow-keeping with the object of obtaining butter, cheese, or milk to sell—may be taken up and successfully pursued by any one with a little enterprise and energy, providing of course that suitable conveniences are available. Milk is retailed at 4d. per quart. With regard to the yield, both in quality and quantity, a good deal of course depends on the cow. There is, for example, an old breed of cows to be met with in the north and north midland counties, known as the Old Polled Durham, of which the picture here given is a good illustration.



A Polled Durham Cow.

The characteristics of this cow all "run to milk," as a north countryman would say. They are—a large well developed frame, a deep chest and flank, a large and smooth udder, a thin and long tail, and a mild and kindly expression about the head and face. This last point is a noticeable feature in good cows, and an expert walking through a herd can almost pick out the good milkers by it alone. The Polled Durham cow is an excellent milker, and, moreover, yields more than the average quantity of butter-fat in proportion to the quantity of milk she gives. The yield of butter-fat varies in different breeds. The Holstein cows—those blue and white, and black and white Dutch cattle, of which the London dairymen are so fond—give very "thin milk."

Their butter-fat does not average more than 9 to 10 per cent. of the milk. The Jersey cow on the other hand gives a ratio of 12 to 14 parts of butter-fat in every 100 parts of milk. A Polled Durham will give a percentage of 13 parts of butter-fat, provided that she has a fair allowance of good pasture grass or roots. This means that she is naturally a rich milker on ordinary food. Wonderful examples of rich milkers on forcing food may be met with at the big Dairy Shows, but these are simply show specimens, and would not stand the test of everyday dairying and feeding. For example, at the late Dairy Show of the British Dairy Farmers' Association, at Islington, cows were milked which yielded 60 lbs. of milk at one time. A gallon of milk weighs 10 lbs. A cow giving 5 gallons of milk at one of her two daily milkings would, if her milk be fairly rich, represent a yield of 8 to 10 lbs. of butter per day! Such a result may be obtained by special feeding for a special occasion, but it could not, of course, be expected in ordinary everyday dairying. A good Jersey will, when at her best, give 2 lbs. of butter per milking for some weeks. The yield will then quickly drop to one pound per milking, and before long to about one pound per day. The yield may remain steady at this point for months if the conditions as to feeding, season, and climate are favourable. The Jersey cow is, however, somewhat delicate, and is therefore only suitable for sheltered situations. There is, however, more in the milk yielding question than has so far been indicated. The cow may, like the Jersey, be a heavy and rich milker, and yet not be suitable for one amateur, on account of its being dainty and requiring petting and coddling. Yet for precisely this reason she may suit another amateur admirably, and he will by care and judicious feeding get more out of her than he would from a hardier and more robust type. Stall feeding with hand-grown green food and roots, coupled with the owner's close personal attention, are needed to get the most out of a Jersey cow. It may be said that if an amateur desires to have a really good milk and butter cow he might possibly be well advised to breed his own. If he can get a start with a cross bred cow between, say, the Old Polled Durham and a Jersey bull of a noted milking strain, he may possibly be able to work up a stud of very heavy and rich milkers which will be hardy, will thrive on plain fare, and he

may also obtain animals which are not to be despised from the butcher's point of view. That cow-keeping is a profitable hobby is no new discovery. The country cottagers have always made it their mainstay, and to the labourer with a small allotment the possession of a cow means all the difference between poverty and independence. Now, too, when co-operation in milk dealing and in cheese and butter making is becoming so general, anyone may keep a cow and yet be spared all the trouble of vending the milk or manufacturing the butter, while probably obtaining a better profit than the cottager who conducts his business with only the assistance of his own family. Before passing from this branch of the subject mention may be made of the Shorthorn as a general utility cow, while a hardy breed which many enthusiasts swear by is the Ayrshire. There are also the little Kerry, an old Irish breed, useful in hilly bare lands; the smart little Devon, a good cottagers' cow; the Red and Black Polls, both good as average milkers; the Sussex, and two or three other breeds more noted for beef than for milk.

THE MANUFACTURE AND SALE OF BUTTER.

Thanks to the aid of modern appliances the actual manufacture of butter is a detail occupying but four or five minutes. A new churn called the "Easy" Churn will actually make butter in three minutes. In large establishments every detail, from milking the cows to moulding and weighing the butter, is now done mechanically. One of the most modern appliances will take a lot of different samples and qualities of butter, will blend them all together, and will in an hour turn out from 700 to 800 lbs. of even quality butter weighed accurately into one or two lb. rolls. The advantage of this blending of butter is that the merchant will pay a better price for it, since he can sell it more readily than when he is dealing with a lot of samples varying in colour and flavour. Wherever the co-operative system has been established the small cow-keeper can take his milk direct to the factory, and the butter from it will be blended with that from the milk of all the other associates, and an even quality made of it all. If, however, the cow-keeper wishes to work single-handed, and to keep a part of the butter for home use, while retaining the skim milk for his pigs and poultry, the mysteries of churning will have to be mastered.

THE BABY CHURN.



The amateur will find this small churn a most useful and handy little implement, for by its assistance even so small a quantity as a quart of cream may be converted into butter. It is worked by swinging it round on the chain from which it hangs, and the knack can be acquired in a very short time. The quality and flavour of the butter depends very largely on

the temperature of the cream. The thermometer consequently plays an important part in butter making, and it is indeed an indispensable article.

THE CO-OPERATIVE SALE OF MILK.

In semi-rural districts the vending of milk may be simplified and rendered more profitable by adopting a system of co-operation. Only one person is needed to work a round, and to supply a number of shops, hotels, schools, and private families, and there is no reason why he should not deal with the milk of several small cow keepers. Such an arrangement is easy to organise and easy to work. A gallon of milk sold at 1/3 would leave 1/- profit to the producer, and as the dairying work would practically be confined to milking the cow, this would pay the small owner better than to make butter from the milk. A gallon of milk should produce about 12 ounces of butter worth on an average 9d., while in a glutted market it could not be sold even for that. If, however, the owner sells the milk he will have no trouble in churning and little risk in marketing. He will practically have nothing to do but find the gallon of milk and pocket the shilling for it. Two milkings a day of a gallon each—a poor yield for any fairly good cow—would thus return a profit on the milk of 14s. a week. There are, of course, many other forms of co-operation in the supplying of dairy produce, and they will be dealt with as opportunity offers in this column.

(To be continued.)

NOW READY!

ONE SHILLING!

Phil May's Winter Annual

Fifty full-paged Original Comic Illustrations
by PHIL MAY.

Phil May's Winter Annual

*Contributions by John Davidson, Grant Allen,
Walter Raymond, Richard Pryce,
Violet Hunt.*

Phil May's Winter Annual

Of all Booksellers, Newsagents, and Bookstalls.

Publishers: WALTER HADDON,
Bouverie House, Salisbury Square, London, E.C.

A FINE COLLECTION.—A Birmingham gentleman is said to be possessed of one of the—if not the—best collections of British birds in the world. In order to procure the specimens in every phase of plumage, the remotest parts of the country have from time to time been visited, and Mr. Coburn, who has been entrusted with the preparation of the cases, has bodily removed and brought away large pieces of rock and huge tufts of grass, herbage, and other growing stuff for the background. Altogether specimens of 2,200 species have been collected, and the work of collection is still going on.

FOR Sale, and Exchange.

*. The charges for advertisements (prepaid) in this page will be sixpence for every twelve words or less, name and address inclusive, and one halfpenny for every additional word. Single letters, initials and figures are each counted as a word; but undivided numbers (as 152), and prices (as 10s. 6d.) count as only one word each. In every case the name and address of the advertiser must be given for publication, and we cannot at present undertake to supply a private name or number and receive replies to advertisements at our office. All advertisements must be accompanied by remittances, otherwise they cannot be inserted. Whenever possible, payment should be made in Postal Orders, and not stamps. Letters should be marked "Advt.," and must be addressed to the Publisher, *Hobbies*, Bouverie House, Salisbury Square, London, E.C.

NOTE.—Trade Advertisements can only be inserted in this page at the rate of one shilling per line.

Albums.— $\frac{1}{2}$ -plate slip-in photo album. Will hold 95 photos, 4/6. Approval. Walker, Maroomla, Tonbridge

Bronkolene, Bronkolene.—Bronkolene Cures Asthma, Bronchitis, Pneumonia, and all diseases of the lungs. No failures. A 2s. bottle will last a month. Send stamped envelope for further particulars.—Midland Medical Agency, 180, Corporation Street, Birmingham. B 2.

Collection of 200 rare English Coins, all reigns, list sent.—C. Cook, 32, Woodbine Cottage, Wolsley Street, Birmingham. B 1.

Electric Cycle Lamp and Battery in thorough working order. Cost 25/-; accept 18/6.—G. COPPER, 59, High Street, Old Brompton, Chatham, Kent.

Electric Night Light Watch Stand complete, with Polished Cabinet and highly finished metal fittings. Perfectly reliable, brilliant light, 7/6.—Electric, Lord Street, Openshaw, Manchester. B 2.

Electrical Hobbies.—Write for New Enlarged List; will just suit you; prices low; best quality.—Electric, Lord Street, Openshaw, Manchester. C 1.

Fretwoods.— $\frac{1}{2}$ inch Canary wood, 3d. per ft., Walnut, Mahogany, Oak, Cedar, 4d. per ft.—T. Carter, Lichfield. D 2.

For Sale.—Cushioned Tyred Safety, balls throughout, also volumes 16 and 17 Boys' Own Paper, unbound, good condition, and set of 12 Chip Carving Tools nearly new. £4 12 6 lot, cheap.—Day, 81, Haviland Road, Boscombe, Hants.

Fretsaw (Roger) wanted, exchange Rabbits or Opera Glasses.—Tompkinson, Wellington Street, Stockton.

Fretwork.—Carving, Inlaying. Lists 48—56, free.—Henry Zilles & Co., Publishers of "The Amateur," 24 & 26, Wilson Street, Finsbury, London, E.C.

Fretworkers.—Special offer this week. Eiffel Tower, Tower Bridge, and Ferris Wheel Patterns, 9d. each, usual price, 1/- Fretwood, 2d. square ft. Bent Iron, 6d. per lb. Lists 1d.—Lunds, 70, Manningham Lane, Bradford. B 1.

Foreign Stamps.—Sheets on approval.—Phoenix Stamp Co., 31, Radnor Street, Peckham.

For Cash we will send 1 dozen Solid White Bone Edged Pinned Table Knives, all Sheffield made, for 6/- 1 dozen Dessert Knives, 5/- 1 pair Carvers to match, 2/9 post free. Money returned or goods exchanged if not approved of.—Joseph Dodds & Co., Nicholson Road, Heeley, Sheffield.

How to Make an Electric Night Light that will work well for years without attention, post free, 6 stamps; also how to attach an electric alarm to clock, 6 stamps.—James, 11, Stanbury Road, Peckham, S.E.

How to Become a Lightning Cartoonist, 7d.—Hotham, 24, West Parade, Huddersfield.

High Class Tools.—For New Illustrated Price List, send 3d. to Osborn Brothers, Tool Merchants, Portsmouth.

Ladies' Good Sealskin Muff Bag 12/6, also Good Toned Violin 10/6—Sanderson, 410, High Street, Gateshead.

Matthew Henry's Commentary on the Bible. Complete, 95 parts, illustrated, splendid condition. Cost £2 18 0, accept 30/- cash.

The Studio.—First 3 volumes illustrated, (parts 2 and 3 missing,) for sale. Several parts now out of print. What offers?

Lloyds' Encyclopaedic Dictionary.—Parts 1 to 11, (part 2 missing,) for sale, 2/6. E. H., 82, Southwark Park Road, London, S.E.

Newspapers.—Punch for sale, a complete set, 1841 to 1894, bound in half morocco, cloth back, just finished by binders, £20 cash; also a set from 1860 to 1894, bound in same style, £10 10s. Can be seen any time. S., 6, Harpur Street, W.C.

Plate for Cash.—Tea pot, beautifully engraved by hand, electro plated with real silver, fit to put before a king, warranted serviceable, Sheffield made. Price, 7/6 post free, cash willingly returned if not approved.—Address, Joseph Dodds and Co., Nicholson Road, Heeley, Sheffield.

Stamps.—Old collection or loose stamps wanted. Price no object.—Captain Vigors, Bideford. C 1.

Stamps.—6d., 70 different, Mexico (coach), Perak (tiger), Colombia, Peru, 5 Brazil, Persia (lion). H., 379, York Road, Wandsworth. C 2.

Several Fretsaws and Lathes, second hand, to be sold cheap. Send for Monthly Register containing details of Engineers' Tools, &c.—Britannia Co., Colchester, and 100, Houndsditch, London. State your precise requirements. B 1.

Stamps.—For cheapest approval sheets write Northern Stamp Co., Great Horton, Bradford. Agents wanted. D 1.

Stamps.—Saint Christopher, obsolete, rare; Saint Helena, Saint Thomas, Hawaii, Victoria, scarce official; Pahang, Congo, Paraguay, Nowanuger, Newfoundland, Johore, Haiti, Cashmere; 43 excellent genuine varieties, 1/1. Smith, Arthur Road, Kingston, Surrey.

BENT IRON WORK.

Send a 1d. stamp for particulars of our New Tool, "THE IONICAL," pronounced by all who have used it to be invaluable for producing accurate spiral curves.

✂ BAMBOO WORK, ✂

The Popular Hobby. Price Lists and Designs sent on receipt of stamp for postage.

THE AMATEUR'S MARKET,
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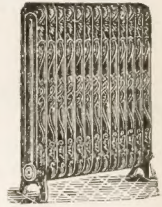
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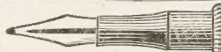
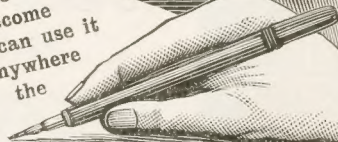
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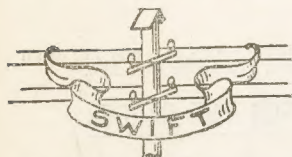


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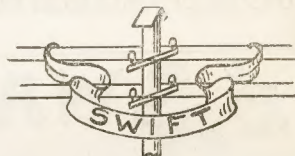
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